# SCORE Search Results Details for Application 10568337 and Search Result 20071129\_084935\_20071129\_084935\_us-10-568-337-2.p2n.rni.

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**SCORE** <u>FAQ</u>

Comments / <u>Suggestions</u>

This page gives you Search Results detail for the Application 10568337 and Search Result 20071129\_084935\_20071129\_084935\_us-10-568-337-2.p2n.rni.

<u>Overview</u>

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GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - nucleic search, using frame plus p2n model

November 29, 2007, 08:49:46; Search time 836 Seconds Run on:

(without alignments)

120.985 Million cell updates/sec

Title: US-10-568-337-2

Perfect score: 124

1 MLRVLHRAASALVMATVIGLAPAVAFA 27 Sequence:

Scoring table: BLOSUM62

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Searched: 5155175 seqs, 1873024446 residues

Total number of hits satisfying chosen parameters: 10310228

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 1000 summaries

Command line parameters:

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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	2	124	100.0	2163	2	US-08-541-780-1	Sequence 1, Appli
	3	55	44.4	36	2	US-07-731-157A-11	Sequence 11, Appl
	4	55	44.4	36	2	US-08-541-780-11	Sequence 11, Appl
С	5	54	43.5	531	5	US-10-703-032-95089	Sequence 95089, A
С	6	54	43.5	539	5	US-10-703-032-91504	Sequence 91504, A
С	7	54	43.5	588	5	US-10-703-032-94706	Sequence 94706, A
С	8	53	42.7	419	5	US-10-703-032-49153	Sequence 49153, A
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С	13	52.5	42.3	425	5	US-10-703-032-97933	Sequence 97933, A
С	14	52.5	42.3	428	5	US-10-703-032-80385	Sequence 80385, A
С	15	52.5	42.3	433	5	US-10-703-032-80412	Sequence 80412, A
С	16	52.5	42.3	438	5	US-10-703-032-49995	Sequence 49995, A
С	17	52.5	42.3	473	5	US-10-703-032-92026	Sequence 92026, A
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ALIGNMENTS
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RESULT 1
US-07-731-157A-1
; Sequence 1, Application US/07731157A
; Patent No. 5457032
  GENERAL INFORMATION:
    APPLICANT: Quax, Wilhelmus J.
    APPLICANT: Misset, Onno
    APPLICANT: Van der Laan, Jan M.
    APPLICANT: Lenting, Herman B.M.
    TITLE OF INVENTION: Mutated beta-lactam acylase genes
    NUMBER OF SEQUENCES: 50
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: COOLEY GODWARD CASTRO HUDDLESON & TATUM
      STREET: FIVE PALO ALTO SQUARE, 4TH FLOOR
      CITY: PALO ALTO
      STATE: CALIFORNIA
      COUNTRY: USA
      ZIP: 94306
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Floppy disk
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: PC-DOS/MS-DOS
      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/07/731,157A
      FILING DATE: 19910509
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: EP 90200962
      FILING DATE: 18-APR-1990
    ATTORNEY/AGENT INFORMATION:
    NAME: RAE-VENTER PH.D., BARBARA
      REGISTRATION NUMBER: 32,750
      REFERENCE/DOCKET NUMBER: GBRO-027/00US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-494-7622
      TELEFAX: 415-857-0663
      TELEX: 380816 COOLEY PA
   INFORMATION FOR SEQ ID NO:
     SEQUENCE CHARACTERISTICS:
      LENGTH: 2163 base pairs
      TYPE: NUCLEIC ACID
      STRANDEDNESS: double
      TOPOLOGY: linear
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    HYPOTHETICAL: NO
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; Sequence 1, Application US/08541780
; Patent No. 5935831
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    APPLICANT: Quax, Wilhelmus J.
    APPLICANT: Misset, Onno
;
    APPLICANT: Van der Laan, Jan M.
    APPLICANT: Lenting, Herman B.M.
    TITLE OF INVENTION: Mutated beta-lactam acylase genes
    NUMBER OF SEQUENCES: 50
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: COOLEY GODWARD CASTRO HUDDLESON & TATUM
      STREET: FIVE PALO ALTO SQUARE, 4TH FLOOR
      CITY: PALO ALTO
      STATE: CALIFORNIA
      COUNTRY: USA
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      SOFTWARE: PatentIn Release #1.0, Version #1.25 (EPO)
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      FILING DATE:
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US/07/731,157
      FILING DATE:
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      FILING DATE: 18-APR-1990
    ATTORNEY/AGENT INFORMATION:
      NAME: RAE-VENTER PH.D., BARBARA
      REGISTRATION NUMBER: 32,750
     REFERENCE/DOCKET NUMBER: GBRO-027/00US
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: 415-494-7622
      TELEFAX: 415-857-0663
      TELEX: 380816 COOLEY PA
  INFORMATION FOR SEQ ID NO: 1:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 2163 base pairs
      TYPE: nucleic acid
      STRANDEDNESS: double
      TOPOLOGY: linear
    MOLECULE TYPE: DNA (genomic)
    HYPOTHETICAL: NO
    ANTI-SENSE: NO
    ORIGINAL SOURCE:
      ORGANISM: Pseudomonas species
      STRAIN: SY77
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Best Local Similarity: 100.0%
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             Db
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SCORE Search Results Details for Application 10568337 and Search Result 20071129_0	Page 4 of 4

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## SCORE Search Results Details for Application 10568337 and Search Result 20071128\_153802\_us-10-568-337-5.rng.

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**SCORE System** Overview

SCORE **FAQ** 

Comments / <u>Suggestions</u>

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GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM nucleic - nucleic search, using sw model

Run on:

November 29, 2007, 00:22:26; Search time 646 Seconds

(without alignments)

1147.147 Million cell updates/sec

Title:

US-10-568-337-5

Perfect score: 100

Sequence:

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Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched:

5620219 segs, 3705283702 residues

Total number of hits satisfying chosen parameters:

11240438

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

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	4	100	100.0	315	14	ADX70106	Adx70106 Recombina
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	6	100	100.0	807	14	ADX70111	Adx70111 Recombina
	7	94.8	94.8	101	4	AAH27732	Aah27732 GL7ACA (a
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	9	93.2	93.2	2482	4	AAI64747	Aai64747 Pseudomon
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C	11	30.6	30.6	560	6	ABK35222	Abk35222 Human cDN
c	12	30.6	30.6	2222	10	ADL25751	Adl25751 Human can
С	13	30.6	30.6	2222	10	ADL25753	Adl25753 Human can
c	14	30.6	30.6	4369	12	ADQ25015	Adq25015 Human sof
С	15	29.6	29.6	1032	5	AAH74579	Aah74579 Nucleotid
·	16	29		110000	4	AAI99682 19	Continuation (20 o
	17	29		110000	4	AAI99683 19	Continuation (20 o
С	18	28.6	28.6	46235	15	AEF73891	Aef73891 Human cor
c	19	28.6	28.6	49999	2	AAZ23903	Aaz23903 Human LOB
C	20	28.2	28.2	706	2	ADR02076	Adr02076 A. gossyp
	21	28.2	28.2	1329	8	ACA19622	Aca19622 Prokaryot
С	22	27.6	27.6	346	3	AAA31766	Aaa31766 Plant mic
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С	31	27	27.0	1387	13	ADX62879	Adx62879 Plant ful
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С	43	26.4	26.4	2331	6	ABK34734	Abk34734 Human cDN
	44	26.4	26.4	3707	2	AAQ82792	Aaq82792 TRK1 gene
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XX
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AC
XX
DT
    05-MAY-2005 (first entry)
XX
DE
    Recombinant protein preparation method-related gac1ss gene region SeqID8.
XX
KW
    fermentation; expression; recombinant protein; protein production;
KW
    interferon alpha 2; gene; ds.
XX
os
    Brevundimonas diminuta.
XX
PN
    WO2005017174-A2.
XX
PD
    24-FEB-2005.
XX
PF
    12-AUG-2004; 2004WO-EP009055.
XX
    13-AUG-2003; 2003US-0494915P.
PR
XX
PA
     (SANO ) SANDOZ AG.
XX
PΙ
    Stempfer G, Alliger P, Palma N;
XX
DR
    WPI; 2005-182386/19.
XX
    Preparing recombinant polypeptides of interest, for producing large
PT
PT
    variety of polypeptides of interest, by fermenting prokaryotic host cell
    comprising a periplasm transformed with a recombinant expression system.
PT
XX
PS
    Example 1; SEQ ID NO 8; 29pp; English.
XX
CC
    This invention relates to a novel method of preparing a recombinant
CC
    polypeptide of interest which comprises fermenting a prokaryotic host
    cell comprising a periplasm transformed with a recombinant expression
CC
    system capable of bringing secretion of a polypeptide of interest into
CC
CC
    the periplasm of the host cell and extracting the polypeptide of interest
CC
    from the periplasm. The method is useful for preparing a wide variety of
CC
    recombinant polypeptides of interest such as human interferon alpha 2.
CC
    The present sequence is that of a region of the B diminuta gaclss gene
CC
    which was used in the exemplification of the invention.
XX
SQ
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AC
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XX
DT
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ΚW
KW
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                 12-AUG-2004; 2004WO-EP009067.
XX
PR
                 13-AUG-2003; 2003US-0494914P.
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                  (SANO ) SANDOZ AG.
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                 Windisch J, Schoergendorfer K, Palma N, Knauseder F, Boehling H;
ΡI
XX
DR
                 WPI; 2005-182378/19.
DR
                 P-PSDB; ADY34498.
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PT
                 New expression vector comprising a polynucleotide encoding a fusion % \left( 1\right) =\left( 1\right) \left( 1\right) +\left( 1\right) \left( 1\right) \left( 1\right) +\left( 1\right) \left( 1
                 protein comprising the signal sequence of the gac gene of Pseudomonas
PT
PT
                 diminuta and a polypeptide other than gac, useful for producing
PΤ
                 polypeptides.
XX
PS
                 Example 1; SEQ ID NO 19; 39pp; English.
XX
CC
                 The invention provides a process for the efficient and direct production
CC
                 of a mature recombinant polypeptide in a prokaryotic host cell. A claimed
CC
                 expression vector comprises a polynucleotide encoding a fusion protein
                 consisting of the signal sequence ADY34482 of the glutaryl 7-
CC
                 aminocephalosporic acid acylase (gac) gene of Pseudomonas diminuta and
CC
                 the polypeptide of interest. A prokaryotic host cell transformed with the
CC
CC
                 vector is cultured under conditions which cause expression of the
                 polynucleotide. Upon formation of the fusion protein, the signal sequence
CC
CC
                 is cleaved off and the polypeptide of interest is released into the
                 periplasm of the host cell. The expression vector is a plasmid,
CC
                 preferably a high copy plasmid. The vector further comprises a
CC
CC
                 polynucleotide comprising the promoter region and the ribosomal binding
```

```
CC
     site ADY34485 or ADY34486 of the gac gene of P. diminuta. The culturing
     is performed as a multi-stage fermentation process comprising a shake-
CC
     flask step, optionally a pre-culture step, and a main culture step. The
CC
    main culture step is performed in a culture medium comprising a substrate
CC
     for more than 90% of the cultivation time at a substrate concentration
CC
     lower that the saturation constant of the substrate, accompanied by high
CC
     levels of dissolved oxygen concentration, and further accompanied by a
CC
     steadily decreasing specific growth rate of the bacterial host cells, the
CC
     process being performed at a temperature that is lower than the optimum
CC
CC
     temperature for growth of the host cell. The substrate is glycerol or a
CC
     carbohydrate, preferably glucose. The process is favorably used for the
CC
     production of recombinant human interferon-alpha 2B in Escherichia coli.
CC
     The present sequence is that of an expression construct for recombinant
CC
     production of human mature interferon-alpha 2B in E. coli. It comprises
CC
     the P. diminuta signal sequence, promoter and ribosome binding site, and
     the coding sequence ADY34481 for interferon-alpha 2B in which codons have
CC
CC
     been modified to improve expression. The expression construct was
     obtained by a combination of chemical synthesis and PCR amplification.
CC
XX
SO
     Sequence 807 BP; 177 A; 215 C; 227 G; 188 T; 0 U; 0 Other;
                         100.0%; Score 100; DB 14;
                         100.0%; Pred. No. 8.1e-23;
  Best Local Similarity
                                                0;
  Matches 100; Conservative
                               0; Mismatches
                                                                         0;
                                                    Indels
                                                                  Gaps
           1 ATCCTGGTTCGTACGCGCCCCTACAAGTGGTGATCTAGGGGAACGTTCCGGGGGCGTCG 60
Qу
             110 ATCCTGGTTCGTACGCGCCCTACAAGTGGTGATCTAGGGGAACGTTCCGGGGGCGTCG 169
Db
          61 CTGCAACGGCGTCTCCGGATCTGGGTGAGAGGGGAAATCC 100
Qy
             Db
         170 CTGCAACGGCGTCTCCGGATCTGGGTGAGAGGGGAAATCC 209
<!--EndFragment-->
```